

# Hydropower in CALIFORNIA



# 386

Hydropower facilities including **Lake Shasta**

# 10,890,000 MWh

Net Electricity Generation Annually

# #4

California is the 4<sup>th</sup> Largest Producer of Hydropower

# 667

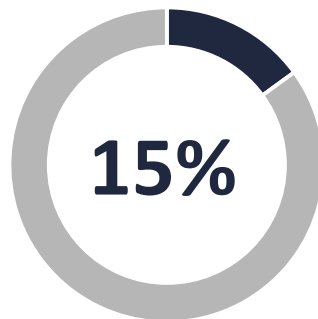
Generating units at the facilities

Equivalent number of homes powered by hydropower



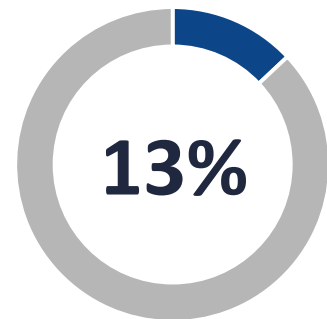
# 1.02 MILLION

California's hydropower as a % total energy



■ Hydropower


Hydropower provides 13% of California's Renewable Energy





■ Renewable Energy

4.6 million metric tons CO2 equivalent emissions are avoided by hydropower generation.

**That's like taking 2.9 million cars off the road each year.**

Potential Growth	
Amount of technical potential hydropower at current non-powered dams over 1MW (total capacity MW):	<b>109.3 MW</b>
Amount of technical potential hydropower at new stream reaches outside wilderness, national parks, etc. (total capacity MW):	<b>3,360 MW</b>
Theoretical marine hydrokinetic potential on the coastline of the state:	<b>270 TWh/yr</b>

Jobs & Economic Benefits	
Number of jobs in California created by hydropower:	<b>11,090</b>
Percent of hydropower workers in the California who are skilled or craft workers:	<b>40.5%</b>
Number of additional jobs needed by 2040 in the Northwest to support hydropower growth, workforce retirements, and rehabilitating older facilities:	<b>3,700</b>

Environmental Benefits	
Monitor and regulate water temperatures and moderate effects of climate change at hydropower facilities to maintain safe water conditions for fish and aquatic species, especially during hot summer extremes.	
Fish hatcheries to help recover ESA-listed species important to the state’s history and cultural identity.	
Protection and conservation of wildlife habitat such as old-growth and second-growth forests, riparian and migratory corridors, and wetlands.	
An on demand resource for integration of other intermittent carbon free resources, like wind and solar, providing instant energy when the sun isn’t shining or the wind isn’t blowing.	

Recreation Benefits	
Hydropower provides recreation opportunities to communities: <ul style="list-style-type: none"> <li>Boating of all types - whitewater boating, rafting, flatwater boating, kayaking</li> <li>fishing – shore, boat, river, and lake</li> <li>swimming</li> <li>biking – mountain and road</li> <li>hiking</li> <li>wildlife viewing</li> <li>camping &amp; more!</li> </ul>	No other energy source provides recreation like hydropower does.



**NWA**  
NORTHWEST  
HYDROELECTRIC  
ASSOCIATION

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Sources:

- [www.eia.gov/energyexplained/hydropower/where-hydropower-is-generated.php](http://www.eia.gov/energyexplained/hydropower/where-hydropower-is-generated.php)
- [www.eia.gov/tools/faqs/faq.php?id=97&t=3](http://www.eia.gov/tools/faqs/faq.php?id=97&t=3)
- <https://www.nrel.gov/docs/fy19osti/74313.pdf>
- <https://energy.ca.gov/filebrowser/download/2272>